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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/672,777

09/26/2003

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RSW920030123US1 (111)

9674

46320

7590

12/28/2011

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SUITE 2022

BOCA RATON, FL 33487

EXAMINER

BELANI, KISHIN G

ART UNIT

PAPER NUMBER

2443

MAIL DATE

DELIVERY MODE

12/28/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/672,777	<b>Applicant(s)</b> FISHER ET AL.	
	<b>Examiner</b> KISHIN G. BELANI	<b>Art Unit</b> 2443	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 5) ☒ Claim(s) 1-5 and 8-11 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-5 and 8-11 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

This action is in response to Applicants' amendment filed on 10/27/2011.

**Independent claims 4 and 11 have been amended. Claims 1-5 and 8-11 are now pending** in the present application. The applicants' amendments to claims are shown in ***bold and italics***, and the examiner's response to the claim amendments is shown in **bold** in this office action. **This Action is made FINAL.**

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claim 1** is rejected under 35 U.S.C. 101 because the claimed invention does not fall within one of the four statutory categories of invention. While the claim recites a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to a particular machine, or (2) transform underlying subject matter (such as an article or material) to a different state or thing. See page 10 of *In Re Bilski* 88 USPQ2d 1385. The instant claim is neither positively tied to a particular machine that accomplishes the claimed method steps nor transforms underlying subject matter, and therefore does not qualify as a statutory process. The claimed method including steps of detecting an event, determining whether a specific resource cannot perform adequately, and further determining whether said specific resource inhibits another resource from performing adequately, is broad enough that the claim, **like an abstract**

**idea**, can be completely performed mentally or without a machine, nor is any transformation apparent.

**Dependent claims 2-3** are rejected because they inherit all the limitations of their base claim 1.

**Independent claim 11** is rejected for the same reason listed above for claim 1.

**Claim(s) 8-10** are rejected under 35 USC 101 since the claims are directed to non-statutory subject matter. Claim(s) 8-10 recite a machine readable storage which appears to cover both transitory and non-transitory embodiments. The United States Patent and Trademark Office (USPTO) is required to give claims their broadest reasonable interpretation consistent with the specification during proceedings before the USPTO. See *In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow). The broadest reasonable interpretation of a claim drawn to a computer readable medium (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media **and** transitory propagating signals per se in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. See MPEP 2111.01. When the broadest reasonable interpretation of a claim covers a signal per se, the claim **must** be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter. See *In re Nuijten*, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not directed to statutory subject matter) and Interim Examination Instructions for Evaluating Subject Matter Eligibility under 35 U.S.C. § 101, Aug. 24, 2009; p. 2.

The Examiner suggests that the Applicant add the limitation "non-transitory machine readable storage" or "**machine readable storage device**" to the claim(s) in order to properly render the claims in statutory form in view of their broadest reasonable interpretation in light of the originally filed specification.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claim 11** is rejected under 35 U.S.C. 102 (e) as being anticipated by **Bhatia et al. (U.S. Patent Publication # 6,687,495 B2)**.

Consider **claim 11**, Bhatia et al. disclose a method for assessing the impact of an indirectly implicated resource within a service level agreement (SLA) in real time (Fig. 2, GLS Server 50 [indirectly implicated resource] and DBS Server 60 [directly associated resource]; abstract that recites a method in which a Differentiated Network Service Gateway [DNSG] implements service level agreements [SLAs] that support differentiated quality-of-service (QoS) in terms of accessing the dynamic network state

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of the mobile subscribers); the method comprising the steps of: establishing an SLA directly implicating a performance level for an underlying resource (column 5, lines 7-35 and column 6, lines 25-31 which disclose two types of SLAs offered by the DNSG 10 [Differentiated Network Services Gateway]: A first class of Guaranteed Level Services [GLS] SLAs and the second class of Differentiated Best Services [DBS] SLAs); noting at least one resource upon which said underlying resource depends, wherein the at least one resource is not directly implicated by the SLA (column 5, lines 7-35 and column 6, lines 25-31 which further disclose that wherein GLS SLAs offer absolute guarantee of a predetermined delay and age for any data request, the delay in serving queries for this class of service is independent of the operator imposed controls and limitations; while DBS SLAs offer a service that may degrade with increase in demand; also column 8, lines 10-26 which further disclose that if the requested data is cached in the CDN 40 and it has the required age [i.e. is not stale], the data is transmitted to the client; this will always be the case for GLS SLAs, being the responsibility, per guaranteed service and QoS, of the GLS Server 50 [not directly implicated by the DBS SLAs] to maintain data of right age in the cache; however, such is not the case for the DBS Server 60 [directly implicated underlying resource responsible for DBS SLAs]; the DBS Server 60 may decide to ignore the request if it determines that it will not be able to give back the data under the available resources and operator imposed network controls for the delay limits expected by the DNGS client 80, because, for DBS SLAs, the service QoS is not guaranteed, and the GLS Server 50, by having priority over the usage of core mobile network 70 resources, inhibits DBS Server 60 from performing

adequately to meet a term [providing requested data that is less than the maximum allowable age specified by the DNSG client 80] within DBS SLA which does not directly implicate GLS Server 50, but directly implicates DBS Server 60);

receiving an event arising from said at least one resource (Fig. 2, Cached Network Data Module 40 [CNDM] and Request Handler 30; column 8, lines 10-18 which disclose that if the data in the cache is determined to be stale [an event], the request handler sets a trigger in the CNDM 40 to inform the DBS Server 60 [Differentiated Best Services Server] of any updates in the cache of the data requested);

determining whether said event affects said underlying resource in meeting said performance level (column 8, lines 10-26 which further disclose that if the requested data is cached in the CDNM 40 and it has the required age [i.e. is not stale], the data is transmitted to the client; this will always be the case for GLS SLAs, being the responsibility, per guaranteed service and QoS, of the GLS Server 50 to maintain data of right age in the cache; however, such is not the case for the DBS Server 60 [underlying resource]; the DBS Server 60 may decide to ignore the request [set as a trigger by CNDM in the event the requested data in the cache has become stale] if it determines that it will not be able to give back the data under the available resources and operator imposed network controls for the delay limits expected by the DNSG client 80, because for DBS SLAs the service QoS is not guaranteed, and the GLS Server 50, by having priority over the usage of core mobile network 70 resources, inhibits DBS Server 60 from performing adequately to meet a term [providing requested data that is less than the maximum allowable age specified by the DNSG client 80]); and,

**upon determining that** said event prevents said underlying resource from meeting said performance level, generating a notification specifying an impact of said event upon said SLA (Fig. 7 that shows an exception message being transmitted to DNSG client, when the DBS Server 60 is unable to meet the requesting DNSG client 80 condition for providing data that is less than the maximum allowable age [said performance level]; column 10, lines 14-28 and claims 1 and 11 disclose these details, including providing information about the dynamic network state to the requesting client based on the request for notification of changes in the mobile subscriber's network state).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or non-obviousness.



This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 1, 3, 4, 8, and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Main et al. (U.S. Patent Publication # 5,893,905)**, in view of **Bhatia et al. (U.S. Patent Publication # 6,687,495 B2)**.

Consider **claim 1**, Main et al. show and disclose a method for performing a real-time service level agreement (SLA) impact analysis (Abstract, that discloses a method for performing an automated [i.e. real-time] monitoring and impact analysis of service level agreement (SLA); Fig. 2 that depicts the setup for the method; column 3, lines 27-45 that disclose the details of the method listed in the abstract), the method comprising the steps of:

detecting an event arising from a specific resource (Fig. 5, blocks 510, 512, 514, 516, 518, and 520 that disclose three different scenarios that trigger alerts [events] arising

out of failure of specific resources [such as CPU, memory, storage, etc.] to meet SLA criteria; column 7, lines 37-40 disclose some of the causes that trigger events); determining whether based upon said event said specific resource cannot perform adequately to meet a term within an SLA which directly implicates said specific resource (column 8, lines 55-67 and column 9, lines 1-10 that disclose the details of the three failing scenarios mentioned above; wherein the failures listed in the cited sections cause the production server [said specific resource] to miss the SLOs [Service Level Objectives] specified in the SLA).

However, Main et al. do not explicitly disclose further determining whether based upon said event said specific resource inhibits another resource from performing adequately to meet a term within another SLA which does not directly implicate said specific resource, but directly implicates said another resource.

In the same field of endeavor, Bhatia et al. show and disclose the claimed method, further determining whether based upon said event said specific resource inhibits another resource from performing adequately to meet a term within another SLA which does not directly implicate said specific resource, but directly implicates said another resource (Fig. 2, Cached Network Data Module 40 [CNDM] and Request Handler 30; column 8, lines 10-18 which disclose that if the data in the cache is determined to be stale [said event], the request handler sets a trigger in the CNDM 40 to inform the DBS Server 60 [Differentiated Best Services Server] of any updates in the cache of the data requested; also Fig. 2, GLS Server 50 and DBS Server 60; and column 5, lines 7-35 and column 6, lines 25-31 which disclose two types of SLAs

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offered by the DNSG 10 [Differentiated Network Services Gateway]: A first class of Guaranteed Level Services [GLS] SLAs and the second class of Differentiated Best Services [DBS] SLAs; wherein GLS SLAs offer absolute guarantee of a predetermined delay and age for any data request, the delay in serving queries for this class of service is independent of the operator imposed controls and limitations; while DBS SLAs offer a service that may degrade with increase in demand; also column 8, lines 10-26 which further disclose that if the requested data is cached in the CDNM 40 and it has the required age [i.e. is not stale], the data is transmitted to the client; this will always be the case for GLS SLAs [an SLA in the claim text], being the responsibility, per guaranteed service and QoS, of the GLS Server 50 [said specific resource] to maintain data of right age in the cache; however, such is not the case for the DBS Server 60 [another resource]; the DBS Server 60 may decide to ignore the request if it determines that it will not be able to give back the data under the available resources and operator imposed network controls for the delay limits expected by the DNGS client 80, because for DBS SLAs [another SLA] the service QoS is not guaranteed, and the GLS Server 50, by having priority over the usage of core mobile network 70 resources, inhibits DBS Server 60 from performing adequately to meet a term [providing requested data that is less than the maximum allowable age specified by the DNSG client 80] within DBS SLA which does not directly implicate GLS Server 50 [said specific resource], but directly implicates DBS Server 60 [said another resource]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the step of determining whether based upon

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said event said specific resource inhibits another resource from performing adequately to meet a term within another SLA which does not directly implicate said specific resource, but directly implicates said another resource, as taught by Bhatia et al., in the method of Main et al., so that proper determination can be made for the root cause of SLA violation by analyzing the relationship between different resources.

Consider **claim 3**, and **as applied to claim 1 above**, Main et al. as modified by Bhatia et al., further show and disclose the claimed method, wherein said detecting event comprises the step of receiving an event from a management application charged with managing said specific resource (in Main et al. reference, Fig. 2, Unicenter Star Console blocks 104A, 104B, and 104C; column 5, lines 28-31 which disclose that management application running on these consoles collect event information of jobs running on the mainframe production computers).

Consider **claim 4**, Main et al. show and disclose a system for performing a real-time service level agreement (SLA) impact analysis (Abstract, that discloses a system for performing an automated [i.e. real-time] monitoring and impact analysis of service level agreement (SLA); Fig. 2 that depicts the system setup; column 3, lines 27-45 that disclose the details of the system listed in the abstract), comprising:  
**a hardware** processor configured to detect an event arising from a specific resource (Figs. 2-3, Production Server 106; column 4, lines 15-18; column 5, lines 58-67 and column 6, lines 18-25 disclose the details of the processor; Fig. 5, blocks 510, 512, 514,

516, 518, and 520 that disclose three different scenarios that trigger alerts [events] arising out of failure of specific resources [such as CPU, memory, storage, etc.] to meet SLA criteria; column 7, lines 37-40 disclose some of the causes that trigger events); determine whether based upon said event said specific resource cannot perform adequately to meet a term within an SLA which directly implicates said specific resource (column 8, lines 55-67 and column 9, lines 1-10 that disclose the details of the three failing scenarios mentioned above; wherein the failures listed in the cited sections cause the production server [said specific resource] to miss the SLOs [Service Level Objectives] specified in the SLA).

However, Main et al. do not explicitly disclose further determining whether based upon said event said specific resource inhibits another resource from performing adequately to meet a term within another SLA which does not directly implicate said specific resource, but directly implicates said another resource.

In the same field of endeavor, Bhatia et al. show and disclose the claimed system, comprising a processor configured to determine whether based upon said event said specific resource inhibits another resource from performing adequately to meet a term within another SLA which does not directly implicate said specific resource, but directly implicates said another resource (Fig. 2, Cached Network Data Module 40 [CNDM] and Request Handler 30; column 8, lines 10-18 which disclose that if the data in the cache is determined to be stale [said event], the request handler sets a trigger in the CNDM 40 to inform the DBS Server 60 [Differentiated Best Services Server] of any updates in the cache of the data requested; also Fig. 2, GLS Server 50 and DBS Server

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60; and column 5, lines 7-35 and column 6, lines 25-31 which disclose two types of SLAs offered by the DNSG 10 [Differentiated Network Services Gateway]: A first class of Guaranteed Level Services [GLS] SLAs and the second class of Differentiated Best Services [DBS] SLAs; wherein GLS SLAs offer absolute guarantee of a predetermined delay and age for any data request, the delay in serving queries for this class of service is independent of the operator imposed controls and limitations; while DBS SLAs offer a service that may degrade with increase in demand; also column 8, lines 10-26 which further disclose that if the requested data is cached in the CDN 40 and it has the required age [i.e. is not stale], the data is transmitted to the client; this will always be the case for GLS SLAs [an SLA in the claim text], being the responsibility, per guaranteed service and QoS, of the GLS Server 50 [said specific resource] to maintain data of right age in the cache; however, such is not the case for the DBS Server 60 [another resource]; the DBS Server 60 may decide to ignore the request if it determines that it will not be able to give back the data under the available resources and operator imposed network controls for the delay limits expected by the DNSG client 80, because for DBS SLAs [another SLA] the service QoS is not guaranteed, and the GLS Server 50, by having priority over the usage of core mobile network 70 resources, inhibits DBS Server 60 from performing adequately to meet a term [providing requested data that is less than the maximum allowable age specified by the DNSG client 80] within DBS SLA which does not directly implicate GLS Server 50 [said specific resource], but directly implicates DBS Server 60 [said another resource]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to determine whether based upon said event said specific resource inhibits another resource from performing adequately to meet a term within another SLA which does not directly implicate said specific resource, but directly implicates said another resource, as taught by Bhatia et al., in the system of Main et al., so that proper determination can be made for the root cause of SLA violation by analyzing the relationship between different resources.

Consider **claim 8**, Main et al. show and disclose a machine readable storage having stored thereon a computer program for performing a real-time service level agreement (SLA) impact analysis (claim 10; column 6, lines 38-58 that disclose a machine readable storage having stored thereon a computer program for performing a real-time service level agreement (SLA) impact analysis), the computer program comprising a routine set of instructions for causing the machine to perform the steps of detecting an event arising from a specific resource (Fig. 5, blocks 510, 512, 514, 516, 518, and 520 that disclose three different scenarios that trigger alerts [events] arising out of failure of specific resources [such as CPU, memory, storage, etc.] to meet SLA criteria; column 7, lines 37-40 disclose some of the causes that trigger events); determining whether based upon said event said specific resource cannot perform adequately to meet a term within an SLA which directly implicates said specific resource (column 8, lines 55-67 and column 9, lines 1-10 that disclose the details of the three

failing scenarios mentioned above; wherein the failures listed in the cited sections cause the production server [said specific resource] to miss the SLOs [Service Level Objectives] specified in the SLA).

However, Main et al. does not explicitly disclose further determining whether based upon said event said specific resource inhibits another resource from performing adequately to meet a term within another SLA which does not directly implicate said specific resource, but directly implicates said another resource.

In the same field of endeavor, Bhatia et al. show and disclose the claimed machine readable storage, further determining whether based upon said event said specific resource inhibits another resource from performing adequately to meet a term within another SLA which does not directly implicate said specific resource, but directly implicates said another resource (Fig. 2, Cached Network Data Module 40 [CNDM] and Request Handler 30; column 8, lines 10-18 which disclose that if the data in the cache is determined to be stale [said event], the request handler sets a trigger in the CNDM 40 to inform the DBS Server 60 [Differentiated Best Services Server] of any updates in the cache of the data requested; also Fig. 2, GLS Server 50 and DBS Server 60; and column 5, lines 7-35 and column 6, lines 25-31 which disclose two types of SLAs offered by the DNSG 10 [Differentiated Network Services Gateway]: A first class of Guaranteed Level Services [GLS] SLAs and the second class of Differentiated Best Services [DBS] SLAs; wherein GLS SLAs offer absolute guarantee of a predetermined delay and age for any data request, the delay in serving queries for this class of service is independent of the operator imposed controls and limitations; while DBS SLAs offer a



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service that may degrade with increase in demand; also column 8, lines 10-26 which further disclose that if the requested data is cached in the CDN 40 and it has the required age [i.e. is not stale], the data is transmitted to the client; this will always be the case for GLS SLAs [an SLA in the claim text], being the responsibility, per guaranteed service and QoS, of the GLS Server 50 [said specific resource] to maintain data of right age in the cache; however, such is not the case for the DBS Server 60 [another resource]; the DBS Server 60 may decide to ignore the request if it determines that it will not be able to give back the data under the available resources and operator imposed network controls for the delay limits expected by the DNGS client 80, because for DBS SLAs [another SLA] the service QoS is not guaranteed, and the GLS Server 50, by having priority over the usage of core mobile network 70 resources, inhibits DBS Server 60 from performing adequately to meet a term [providing requested data that is less than the maximum allowable age specified by the DNGS client 80] within DBS SLA which does not directly implicate GLS Server 50 [said specific resource], but directly implicates DBS Server 60 [said another resource]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to determine whether based upon said event said specific resource inhibits another resource from performing adequately to meet a term within another SLA which does not directly implicate said specific resource, but directly implicates said another resource, as taught by Bhatia et al., in the machine readable storage of Main et al., so that proper determination can be made for the root cause of SLA violation by analyzing the relationship between different resources.

Consider **claim 10**, and **as applied to claim 8 above**, Main et al., as modified by Bhatia et al., disclose a machine readable storage having stored thereon a computer program including receiving an event from a management application charged with managing said specific resource (in Main et al. reference, claim 10; Fig. 2, Unicenter Star Console blocks 104A, 104B, and 104C; column 5, lines 28-31 which disclose that management application running on these consoles collect event information of jobs running on the mainframe production computers).

**Claims 2, 5 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Main et al. (U.S. Patent Publication # 5,893,905)**, in view of **Bhatia et al. (U.S. Patent Publication # 6,687,495 B2)**, and further in view of **Barkan et al. (U.S. Patent Publication # 6,925,493 B1)**.

Consider **claim 2**, and **as applied to claim 1 above**, Main et al., as modified by Bhatia et al., further disclose the claimed method, including the step of establishing a hierarchy of resources within a shared database through which a relationship can be recognized between said specific resource and said another resource in said further determining step (in Main et al. reference, column 4, lines 25-27 that disclose job dependencies and their required resource dependencies are entered into the maintenance workstation 108 and are stored in a databases in the production server 106).

However, Main et al., as modified by Bhatia et al., do not explicitly show and disclose a shared database through which a relationship can be recognized between said specific resource and said another resource in said further determining step.

In the same field of endeavor, Barkan et al. show and disclose a method including the step of establishing a hierarchy of resources within a shared database through which a relationship can be recognized between said specific resource and said another resource in said further determining step (Fig. 3 showing Infrastructure DB corresponding to a shared database, and Fig. 2 showing Infrastructure Manager 24; column 6, lines 25-31 which disclose that the Infrastructure Manager stores the information about the map of resources, i.e. what is the role of each resource, where it is connected, and which user/users are influenced by it, in the Infrastructure DB).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the step of establishing a hierarchy of resources within a shared database through which a relationship can be recognized between said specific resource and said another resource in said further determining step, as taught by Barkan et al., in the method of Main et al., as modified by Bhatia et al., so that proper determination can be made for the root cause of SLA violation by analyzing the relationship between different resources.

Consider **claim 5**, and **as applied to claim 4 above**, Main et al., as modified by Bhatia et al., further disclose the claimed system, wherein a hierarchy of resources is established within a shared database (in Main et al. reference, column 4, lines 25-27

that disclose job dependencies and their required resource dependencies are entered into the maintenance workstation 108 and are stored in a databases in the production server 106).

However, Main et al., as modified by Bhatia et al., do not explicitly disclose a shared database through which a relationship can be recognized between said specific resource and the another resource.

In the same field of endeavor, Barkan et al. show and disclose the claimed system, wherein a hierarchy of resources within a shared database through which a relationship can be recognized between said specific resource and the another resource (Fig. 3 showing Infrastructure DB corresponding to a shared database, and Fig. 2 showing Infrastructure Manager 24; column 6, lines 25-31 which disclose that the Infrastructure Manager stores the information about the map of resources, i.e. what is the role of each resource, where it is connected, and which user/users are influenced by it, in the Infrastructure DB).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to establish a hierarchy of resources within a shared database through which a relationship can be recognized between said specific resource and said another resource, as taught by Barkan et al., in the system of Main et al., as modified by Bhatia et al., so that proper determination can be made for the root cause of SLA violation by analyzing the relationship between different resources.

Consider **claim 9**, and **as applied to claim 8 above**, Main et al., as modified by Bhatia et al., disclose that the machine readable storage further comprising the step of establishing a hierarchy of resources within a shared database through which a relationship can be recognized between said specific resource and said another resource in said further determining step (in Main et al. reference, column 4, lines 25-27 that disclose job dependencies and their required resource dependencies are entered into the maintenance workstation 108 and are stored in a databases in the production server 106).

However, Main et al., as modified by Bhatia et al., do not explicitly show a shared database through which a relationship can be recognized between said specific resource and said another resource in said further determining step.

In the same field of endeavor, Barkan et al. show and disclose that the machine readable storage further comprising the step of establishing a hierarchy of resources within a shared database through which a relationship can be recognized between said specific resource and said another resource in said further determining step (claims 7-10; Fig. 3 showing Infrastructure DB corresponding to a shared database, and Fig. 2 showing Infrastructure Manager; column 6, lines 25-31 which disclose that the Infrastructure Manager stores the information about the map of resources, i.e. what is the role of each resource, where it is connected, and which user/users are influenced by it, in the Infrastructure DB).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include software instructions for establishing a

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hierarchy of resources within a shared database through which a relationship can be recognized between said specific resource and said another resource in said further determining step, as taught by Barkan et al., in the machine readable storage of Main et al., as modified by Bhatia et al., so that proper determination can be made for the root cause of SLA violation by analyzing the relationship between different resources.

### ***Response to Arguments***

Applicants' arguments filed 10/27/2011 have been fully considered but they are not persuasive. After carefully reviewing the presented arguments and the teachings of the prior art used to reject the claims, the examiner has concluded that the cited references do adequately teach each and every claim element of the amended claim set. The claims are therefore anticipated by or obvious over the cited prior art, non-novel and not in the condition for allowance in their present form. Following is the examiner's response to the presented arguments:

Based on the amendment to claim 11, the examiner has withdrawn the objection to this claim. Also, based on the amendment to claim 4, the examiner has withdrawn the 35 USC 101 rejections for claims 4 and 5. However, in the absence of appropriate amendments, the examiner has to follow the current office guidelines in maintaining the 35 USC 101 rejections for claims 1-3 and 8-10.

On page 12 of the "Remarks" section, the applicants allege that 'the examiner does not appear to have realized the full import of the meaning of the term "storage". A transitory medium such as signal does not "store" anything. Instead a signal transmits

information". The examiner respectfully disagrees with the applicants' remarks.

Wireless transmission of digital signals representing executable instruction code involves high-frequency carrier waves that are modulated at the transmitting end to store the digital signals and then demodulated at the receiving end to extract the stored signals from the carrier waves. Even if the duration of signals stored may be only in milliseconds, in the age of nanosecond computing, it represents a million times the duration of execution of a computer instruction in modern computers. One cannot just transport or transmit information without storing it.

On page 19 of the "Remarks" section, the applicants argue that the cited reference of Bhatia et al. "has nothing to do with the subject matter of the applicants' claimed invention, which concerns assessing the impact of an indirectly implicated resource within a service level agreement (SLA) in real time". The examiner respectfully disagrees with this argument. The cited Bhatia reference does indeed teach "assessing the impact of an indirectly implicated resource within a service level agreement (SLA) in real time". Bhatia et al. teach of two different classes of SLA services; a Guaranteed Level Service [GLS] and a Differentiated Best Service [DBS], each supported by the corresponding servers. Since the Guaranteed Level Service takes precedence over the Differentiated Best Service, the network resources that otherwise would have been provided to the DBS requests, are instead diverted to the GLS requests, thereby impacting the availability of indirectly implicated resources in real time.

On page 19 of the "Remarks" section, the applicants further argue that "the GLS server and the DBS server are not directly implicated resources (underlying resources) and indirectly implicated resources (at least one resource upon which the underlying resource depends)". The applicants further argue that "a server utilizes resources (such as storage, CPU, etc.) to provide services to the requesting clients, but a server itself is not a resource implicated in a SLA". The examiner begs to differ with the applicants' argument. A server is a specialized computer with memory, storage, CPU and operating system resources of its own to provide network data to requesting client computers. It also uses the network bandwidth (another resource) to prioritize the requests based on the service level agreements. Therefore, it is not the examiner who has misconstrued the critical claim term "resource" as "server", as alleged by the applicants in the last paragraph on page 19, but the applicants themselves.

Accordingly, the examiner has properly interpreted the claim term "resource" of claim 11, which remains rejected under 35 USC 102(e) as being anticipated by Bhatia et al.

The arguments against rejection of the remaining claims 1-5 and 8-10 are based on the same premise used for independent claim 11. Therefore, no new response is needed. In conclusion, **claims 1-5 and 8-11 are not in the condition for allowance** at the present time.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kishin G. Belani whose telephone number is (571) 270-1768. The Examiner can normally be reached on Monday-Friday from 6:00 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-0800.

*/K. G. B./*  
*Examiner, Art Unit 2443*

December 20, 2011

*/ALINA N BOUTAH/*

Primary Examiner, Art Unit 2443